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Recovery of tartaric acid from material containing K hydrogen tartrate (KHT), e.g. wine yeast or tartar

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Number of Countries: 030 Number of Patents: 008

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
DE 19819884	A1	19991111	DE 1019884	A	19980504	200004 B
AU 9926019	A	19991111	AU 9926019	A	19990503	200004
EP 965576	A1	19991222	EP 99108046	A	19990423	200004
NZ 335344	A	20000623	NZ 335344	A	19990422	200038
ZA 9903088	A	20010131	ZA 993088	A	19990504	200110
BR 9901412	A	20011030	BR 991412	A	19990504	200173
AU 749707	B	20020704	AU 9926019	A	19990503	200255
US 6534678	B1	20030318	US 99303975	A	19990503	200322

Priority Applications (No Type Date): DE 1019884 A 19980504

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
DE 19819884	A1		4	C07C-059/255	
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LI LT LU LV MC MK NL PT RO SE SI					
NZ 335344	A			C07C-059/255	
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Abstract (Basic): DE 19819884 A1

NOVELTY - Recovery of tartaric acid from a material containing at least 5 wt.% (as dry wt.) of K hydrogen tartrate (KHT) involves converting the KHT to di-K tartrate (DKT), crystallizing-out a KHT-containing suspension from the DKT solution and recovering tartaric acid from a saturated KHT solution produced from the suspension.

DETAILED DESCRIPTION - Recovery of tartaric acid from a material containing at least 5 wt.% (as dry wt.) of K hydrogen tartrate (KHT) comprises:

(i) stirring with caustic potash to completely convert the KHT to di-K tartrate (DKT);

(ii) removing impurities from the DKT-containing aqueous solution and treating it with acid at pH 2-5 to give a crystallized-out KHT-containing suspension;

(iii) separating off KHT from the suspension and washing it with water to give an at least 80 wt.% KHT-saturated second aqueous solution; and

(iv) removing K from the second solution to give an aqueous tartaric acid solution from which the acid can be recovered.

USE - In recovering tartaric acid from wine yeast or tartar.

DESCRIPTION OF DRAWING(S) - The drawing shows the apparatus used in the process:

stirring vessel (5)  
for step (2)  
washing unit (i)  
filter (7)  
precipitation vessel (5)  
acid conduit (15)  
filter (16)  
vessel (18)  
for step (22)  
cation exchanger (26) decolorizing unit (iv)  
, e.g. activated carbon; and anion exchanger (29)  
pp; 4 DwgNo 1/1

Technology Focus:

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Process: The feed to step (i) is a yeast-containing material and following conversion to DKT a yeast-containing sludge is separated from the product. The acid used in the precipitation step (ii) is tartaric acid. Step (iv) is effected using a cationic exchanger and the second solution is converted by KOH to give a DKT solution which is electrolysed to give separately a tartaric acid solution and a KOH solution. The tartaric acid solution is led through a tartaric acid-loaded anion exchanger prior to removal of the water.

Title Terms: RECOVER; TARTARIC; ACID; MATERIAL; CONTAIN; HYDROGEN; TARTRATE  
; WINE; YEAST; TARTAR

Derwent Class: D16; E17

International Patent Class (Main): C07C-000/00; C07C-051/02; C07C-051/42;  
C07C-059/255; C12P-007/46

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C12P-007/42

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M391 M416 M620 M720 M904 M905 M910 N132 N362 N421 N422 N512 N513  
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